

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A method of allocating an Internet Protocol (IP) address and detecting duplication of the IP address in a network environment, comprising the steps of:

allocating an initial IP address to a terminal;

sending and receiving broadcast messages;

detecting duplication of the IP address while sending and receiving the broadcast messages;

updating a Duplicate Address Detection (DAD) table through searches of at least one of a DAD table and a history table; and

determining whether a collision of the IP address occurs using a DAD timer handler.

wherein the broadcast messages are one-hop broadcast messages, and each entry of the Duplicate Address Detection (DAD) table is periodically updated by the one-hop broadcast messages.

2. (original): The method according to claim 1, wherein the network environment is an ad-hoc network environment.

3. (original): The method according to claim 1, wherein said terminal allocates said initial IP address to itself.

4. (canceled).

5. (currently amended): A method of allocating an Internet Protocol (IP) address and detecting duplication of the IP address in a network environment, comprising the steps:

(a) initially allocating a tentative IP address to a terminal, by the terminal;

(b) determining whether the tentative IP address can be used by the terminal;

(c) comparing the tentative IP address with at least one other IP address;
(d) if the tentative IP address has a duplicate, selecting an advisory IP address that does not exist;

(e) sending the advisory IP address to the terminal;

(f) performing step (b) using the advisory IP address as the tentative IP address,

wherein the at least one other IP address is located in a Duplicate Address Detection (DAD) table, and

wherein each entry of the Duplicate Address Detection (DAD) table is periodically updated by a one-hop broadcast message.

6. (original): The method according to claim 5, wherein said terminal allocates the tentative IP address to itself.

7. (original): The method according to claim 5, wherein the network environment is an ad-hoc environment.

8. (original): The method according to claim 5, wherein the network environment has no central server.

9. (canceled).

10. (previously presented): The method according to claim 5, wherein the advisory IP address does not exist in said DAD table.

11. (previously presented): The method according to claim 5, wherein a neighboring mobile terminal selects the advisory IP address.